Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   **(Currently Amended)** A method for scoring a severity of a neurological event associated with a nervous system disorder, the method comprising:

(a)   determining that a sensed neurological signal represents at least one neurological event, the determining including processing of the sensed neurological signal after it is digitized;

(b)   identifying at least one feature of the at least one neurological event to use in scoring;

(c)   computing a score of relative severity of the at least one neurological event using the identified feature wherein the computing allows a user to exclude a certain event from being scored; and

(d)   ranking the at least one neurological event by severity relative to at least one other scored neurological event.

2.   **(Currently Amended)** A method for scoring a severity of a neurological event associated with a nervous system disorder, the method comprising:

(a)   determining that a sensed neurological signal represents at least one neurological event;

(b)   identifying at least one feature of the at least one neurological event to use in scoringThe method of claim 1, wherein the at least one neurological event is selected from the group consisting of a detection cluster event and a reported event;

(c)   computing a score of relative severity of the at least one neurological event using the identified feature; and

(d)   ranking the at least one neurological event by severity relative to at least one other scored neurological event.

3.   **(Previously Presented)** The method of claim 1, wherein the at least one feature identified in (c) is selected from the group consisting of a duration of a seizure detection, a spread, a number of clusters per unit time, a number of detections within a cluster, a duration of an event cluster, a duration of a detection, and an inter-seizure interval.

4.   **(Previously Presented)** The method of claim 1, further comprising:

(e)   communicating the ranked events to an external device.

5.   **(Previously Presented)** The method of claim 1, further comprising:

(e)   displaying the ranked events.

6.   **(Previously Presented)** The method of claim 1, wherein the ranking in (d) is performed by an implanted device.

7.   **(Previously Presented)** The method of claim 1, wherein the identifying the at least one feature in (b) comprises:

(i)   using algorithm-based measures of activity of the nervous system disorder.

8.   **(Previously Presented)** The method of claim 5, wherein the nervous system disorder is a seizure and the computing the score in (c) comprises:

(i)   relating duration, intensity, and extent of electrographic spread of the nervous system disorder.

9.   **(Cancelled)**.

10.   **(Previously Presented)** The method of claim 1, wherein the feature is selected from the group consisting of a number of monitoring elements involved in the event, a number of clusters per unit time, a number of detections within a detection cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

11.   **(Previously Presented)** The method of claim 1, wherein the computing the score in (c) comprises:

(i)   computing a relative severity minimum, wherein the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

12.   **(Previously Presented)** The method of claim 1, wherein the neurological signal received from the monitoring element is selected from the group consisting of a chemical signal, a biological signal, a temperature signal, a pressure signal, a respiration signal, a heart rate signal, a ph-level signal, and a peripheral nerve signal.

13.   **(Cancelled)**.

14.   **(Previously Presented)** The method of claim 1, wherein the nervous system disorder is selected from the group consisting of a peripheral nervous system disorder, a mental health disorder, and a psychiatric disorder.

15.   **(Previously Presented)** A medical device system capable of scoring a severity of neurological events relating to a nervous system disorder, the system comprising in combination:

(a)   at least one monitoring element, each at least one monitoring element configured to generate a neurological signal of a sensed neurological condition; and

(b)   a means for processing for detecting a neurological event based on an evaluation of the neurological signal, for identifying at least one feature of the neurological event for use in scoring, for computing a score of relative severity of the neurological event using the identified at least one feature, for ranking the neurological event by severity relative to at least one other scored event, and for allowing a user to exclude a certain neurological event from being scored.

16.   **(Currently Amended).** The medical device system of claim 15, wherein the neurological event the means for processing is capable of detecting is selected from the group consisting of ~~a detected event,~~ a detection cluster event[[,]] and a reported event.

17.   **(Previously Presented)** The medical device system of claim 15, wherein the at least one feature the means for processing is for identifying is selected from the group consisting of a duration of a seizure detection, a spread, a number of clusters per unit time, a number of detections within a detection cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

18.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further for communicating the ranked neurological events to an external device.

19.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further for causing the ranked neurological events to be displayed.

20.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is positioned in an implanted device.

21.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further for identifying the feature using algorithm-based measures of activity of the nervous system disorder.

22.   **(Previously Presented)** The medical device system of claim 21, wherein the nervous system disorder is a seizure and the means for processing is further for computing the score by relating duration, intensity, and extend of electrographic spread of the nervous system disorder.

23.   **(Cancelled)**.

24.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further for identifying at least one feature selected from the group consisting of a maximal intensity of the event, a number of monitoring elements involved in the event, a number of clusters per unit time, a number of detections within a cluster, a duration of a detection cluster, a duration of a detection, and an inter-seizure interval.

25.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is further for determining a relative severity minimum, whereby the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

26.   **(Previously Presented)** The medical device system of claim 15, wherein the at least one monitoring element is configured to generate the neurological signal selected from the group consisting of a chemical signal, a temperature signal, a pressure signal, a respiration signal, a heart rate signal, and a ph-level signal.

27.   **(Previously Presented)** The medical device system of claim 15, wherein the at least one monitoring element is selected from the group consisting of an electrode and a sensor.

28.   **(Previously Presented)** The medical device system of claim 15, wherein the nervous system disorder is selected from the group consisting of a central nervous system disorder, a peripheral nervous system disorder, a mental health disorder, and a psychiatric disorder.

29.   **(Cancelled)**.

30.   **(Previously Presented)** The medical device system of claim 15, wherein the means for processing is positioned within an implanted device.

31.   **(Cancelled)**

32.   **(Previously Presented)** The medical device system of claim 30, further comprising:

(c)   an external device having a display for displaying the ranked events.

33.   **(Previously Presented)** A method for determining the severity of a detection cluster comprising:

(a)   determining that a sensed neurological signal represents a detection cluster;

(b)   identifying at least one feature in the detection cluster;

(c)   computing a score of relative severity of the detection cluster using the identified at least one feature, wherein the computed score is selected from a range of at least three values including an upper value and a lower value; and

(d)   ranking the detection cluster by severity relative to previously scored detection clusters.

34.   **(Previously Presented)** The method of claim 33, wherein the at least one feature identified in (b) is selected from the group consisting of a spread of the detection cluster, a number of detection clusters per unit time, a number of detections within the detection cluster, a detection cluster severity, and an inter-seizure interval.

35.   **(Previously Presented)** The method of claim 33, wherein the computing of the score in (c) comprises:

(i)   computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

36.   **(Previously Presented)** The method of claim 33, wherein the computing of the score in (c) comprises:

(i)   allowing a user to exclude a certain event from being scored.

37.   **(Previously Presented)** The method of claim 33, wherein (b)-(d) occur after the detection cluster has ended.

38.   **(Previously Presented)** A method for determining the severity of a detected neurological event comprising:

(a)   receiving a neurological signal;

(b)   processing the neurological signal to detect a neurological event;

(c)   characterizing at least one feature of the detected neurological event; and

(d)   computing a score of severity of the neurological event based on the at least one feature, wherein the computed score is selected from a range of at least three values including an upper value and a lower value.

39.   **(Previously Presented)** The method of claim 38, further comprising:

(e)   ranking the neurological event relative to at least one other neurological event, the ranking based on the severity score.

40.   **(Previously Presented)** The method of claim 39, wherein the feature characterized in (c) is selected from the group consisting of a spread of the detection cluster, a number of detection clusters per unit time, a number of detections within the detection cluster, a detection cluster severity, and an inter-seizure interval.

41.   **(Previously Presented)** The method of claim 39, wherein the computing in (d) comprises:

(i)   computing a relative severity minimum, in which the lowest relative severity score associated with clinical manifestations or other behaviors indicative of a nervous system disorder activity may be used to minimize a probability of missing clinical events.

42.   **(Previously Presented)** The method of claim 39, wherein the computing in (d) comprises:

(i)   allowing a user to exclude a certain event from being scored.

43.   **(Previously Presented)**   The method of claim 38, wherein (c)-(d) occur after the detected neurological event has concluded.